

**Before the
First Responder Network Authority**

Nationwide Public Safety Broadband)	
Network Special Notice)	No. D15PS00295
)	

COMMENTS OF THE MACINAC INITIATIVE

The five States of the Mid-Atlantic Consortium for Advanced Interoperable Communications (“MACINAC”) Initiative¹ are pleased to provide these comments in response to the First Responder Network Authority (“FirstNet”) Nationwide Public Safety Broadband Network (“NPSBN”) Special Notice.² MACINAC’s comments submission includes both this document as well as the attached Excel spreadsheet addressing operational architecture.

I. INTRODUCTION

MACINAC has long urged FirstNet to enable states to “opt in” to the FirstNet network in a coordinated, regional effort to maximize the efficiency and interoperability of the network for those states participating in the regional initiative. We are pleased that in the Special Notice, FirstNet encourages proposals from the vendor community with both a nationwide (“Category One”) as well as a sub-national, regional (“Category Two”) scope, defined as serving one or more states. The NPSBN will

¹ The MACINAC Initiative, which includes Delaware, Maryland, Pennsylvania, Virginia, and West Virginia, coordinates its member States to work together where concerted action will result in improved interoperability or cost savings with regard to public safety wireless broadband. See www.macinac.org. MACINAC is not an entity or organization; it is an agreement among five States to work together to further their respective interests in the successful deployment of public safety wireless broadband service in the mid-Atlantic region.

² First Responder Network Authority Nationwide Public Safety Broadband Network Special Notice - D15PS00295 (“Special Notice”) (Apr. 27, 2015). As used in these comments, the term “Special Notice” includes all associated documents, including the Statement of Objectives, Appendices, and any others publicly posted at <https://www.fbo.gov/index?s=opportunity&mode=form&tab=core&id=7c77a7ef3f5b3521fd817f1e58f3c875&cvview=1>.

be more broadly and sustainably adopted the more closely aligned and integrated it is with the governance structures established by groups of states working together on a regional basis. To gain the full benefit of the regional approach, MACINAC urges FirstNet to broaden the Category Two acquisition alternative to allow vendors the option of including additional functions in their bids, including subscriber adoption and customer lifecycle management.

MACINAC's comments on the Special Notice include both this document as well as the attached spreadsheet addressing operational architecture. MACINAC conducted two regional workshops to gather comments on FirstNet's operational architecture (Special Notice Appendix C-7) from a range of state, local, and federal public safety practitioners. We have compiled that feedback—which is necessarily preliminary based upon the preliminary nature of Special Notice—into the attached spreadsheet modeled on the FirstNet C-7 comments form, embedded at the end of this document. The Commonwealth of Pennsylvania also generated its own independent feedback (which does not in all cases align with the input from the MACINAC regional workshops); we have added those state-specific comments as a separate column in the attached spreadsheet as a convenience to FirstNet. That column reflects Pennsylvania's proposal that FirstNet adopt a flexible network architecture approach described in Pennsylvania's own, separate response to the Special Notice.

II. FIRSTNET SHOULD BROADEN CATEGORY TWO TO EXPLOIT THE BUILT-IN ADVANTAGES OF THE REGIONAL APPROACH.

In the Special Notice, FirstNet proposes an acquisition strategy that recognizes the potential benefits of the regional approach, at least from the perspective of a vendor bidding to leverage covered leasing agreement ("CLA") revenues to fund build-out and operation of the radio access network ("RAN"). Industry responses to the MACINAC Initiative Request for Information ("MACINAC RFI"), released on April 23, 2013,³ revealed substantial interest in such a business approach on a regional

³ Available at <http://www.macinac.org/macinac-rfi.html>.

scale. As an acquisition strategy, therefore, FirstNet proposing a regional approach makes perfect sense: if bidders can build a strong business case for a regional RAN/CLA strategy, they should be encouraged to do so.

Though we strongly support FirstNet's embrace of a regional approach, we are concerned that Category Two, as defined in the Special Notice, is too narrow to best support the broad adoption required for our nation's first responders to fully obtain the benefits of mobile broadband. In the Special Notice, FirstNet defines Category Two as including two specific "High Level Functions:" RAN ("Radio Access Network") and CLA ("Covered Leasing Agreement")—no more and no less. As we stated in our comments responding to the Second Notice:

The MACINAC States have long believed that a regional [CLA] could be the keystone to a successful business model for the NPSBN RAN in the region. Indeed, input we received in connection with our Request for Information in 2013 indicated that partners may be more interested in pursuing a regional [CLA] than a nationwide one, suggesting that, indeed, a 'group of States may be able to generate more fees from a CLA [covered leasing agreement] than FirstNet,' generating greater revenues for the network than those same regional states would generate if they were folded into a nationwide business model.⁴

FirstNet would be shortsighted, however, if it were to limit its recognition of the value of the regional approach just to RAN/CLA acquisition. As planning, deployment, marketing, and operations proceed, it will become apparent that regional is the most efficient and effective scale for many if not most aspects of NPSBN work—particularly subscriber adoption. FirstNet should build its policies around this reality, including the role of regional governance bodies, and it should reflect those policies in its acquisition approach.

⁴ Comments of the MACINAC Initiative (filed April 28, 2015) at 4 (*available at* <http://www.regulations.gov/contentStreamer?documentId=NTIA-2015-0001-0038&attachmentNumber=1&disposition=attachment&contentType=pdf>) (commenting on *First Responder Network Authority Further Proposed Interpretations of Parts of the Middle Class Tax Relief and Job Creation Act of 2012*, Notice and Request for Comments, National Telecommunications and Information Administration, 80 FR 13336 (March 13, 2015) ("Second Notice"); quoting Second Notice at 13349).

A. For Many Aspects of the NPSBN, a Regional Approach Working with Regional Governance Bodies Will Work Better, Regardless of Acquisition Strategy

Very early on, FirstNet adopted a regional approach to public safety stakeholder outreach, dividing the states into groups that align with FEMA regions. Regional outreach made sense because the Act required consultation with states and because the FEMA regions include states with roughly similar location, requirements, and culture. Though no network yet exists, FirstNet's region-based outreach work is essentially early-stage network marketing, the engagement of and selling to the public safety entities in each region. As it proceeds to design, deploy, operate, maintain, and evolve the NPSBN, FirstNet will undoubtedly follow the lead of other service providers with a nationwide footprint by managing the enormity of its task through regional divisions. For some High Level Functions, such as public safety core services and applications ecosystem, centralization is required, but for many others, regionalization will be preferable. And in pursuing those functions within a region, the role of the regional governance body will be critical.

Subscriber adoption is one area in which FirstNet will greatly benefit by embracing a regional approach and regional governance, regardless of its acquisition approach. As MACINAC explained in its comments on FirstNet's First Notice,

[S]takeholder support requires meaningful participation, which calls for a less-than-nationwide approach. ... A multi-state region, comprised of contiguous States sharing a strong culture of cross-border mutual aid and a balance of urban and rural geographies, is the most manageable, advantageous unit for deployment of public safety LTE. It offers the best opportunity to take advantage of broad scale without losing the critical elements of stakeholder involvement and support.⁵

⁵ Consolidated Response of the MACINAC Initiative to the Request for Information for Comprehensive Network Solution(s) and Public Notice and Request for Comments (Oct. 23, 2014) at 3 (responding to *First Responder Network Authority Proposed Interpretations of Parts of the Middle Class Tax Relief and Job Creation Act of 2012*, Notice and Request for Comments, National Telecommunications and Information Administration, 79 FR 57058 (Sept. 24, 2014) ("First Notice")) ("MACINAC Response to RFI and First Notice").

For public safety agencies, trust is key to adoption of a new product or technology—trust that it will be reliable and affordable in the long run, and trust that future changes will not sour the deal that led to adoption in the first place. Unlike the mass market served by commercial carriers, prospective NPSBN subscribers are highly organized within state and regional governance bodies. They will look to those governance bodies to develop the trust they need to adopt the NPSBN. MACINAC does not mean to suggest that state and local public safety entities would eschew the NPSBN under a national, top-down approach, but adoption will be far greater if driven by the regional and state governance bodies those public safety entities already trust and control.

B. FirstNet Should Permit Broader Proposals from Category Two Bidders

The NPSBN will be a nationwide network controlled by a central core. It is this core, along with the nationwide policies established by FirstNet, that will ensure interoperability nationwide. The Special Notice, by defining both a nationwide Category One as well as a regional Category Two acquisition option, recognizes that not all aspects of the NPSBN need be procured, deployed, or even managed on a nationwide basis, and that vendors may in fact prefer to bid on a sub-national basis.

The Special Notice divides the entirety of NPSBN acquisition into nine “High Level Functions,” all of which must be provided by Category One bidders, but only two of which are to be provided by Category Two bidders—RAN and CLA. The division suggests that FirstNet has heard from potential industry partners the same input MACINAC received in response to its 2013 RFI: that a public-private partnership leveraging private financing and network revenues (including CLA revenues) to cover the cost of network construction and operation would in some cases be more successful on a regional basis than on a nationwide one. By limiting Category Two to RAN and CLA functions, however, FirstNet seems to suggest that a vendor might be interested in attempting to make a sustainable business model solely on the strength of CLA revenues without any support from subscriber fee revenues, an idea that is not supported by MACINAC’s research. An initial high-level financial analysis presented at MACINAC’s

annual workshop suggests that both revenue sources are likely necessary to achieve sustainability and thus interest potential bidders.⁶

Limiting the Category Two bidder only to RAN and CLA functions, however, would create a potentially damaging financial incentive. A Category Two winner would increase profit by maximizing CLA revenues earned by selling excess capacity not otherwise needed by public safety. As we noted in our comments on the FirstNet RFI and First Notice, identifying secondary user entities and CLA terms

is a critical area of concern for MACINAC stakeholders and one in which we believe they must be deeply involved, because it necessarily includes consideration of the amount of excess network capacity to be made available to secondary users—and thus not used by public safety.⁷

The result could be an incentive for the Category Two vendor to manipulate the RAN to discourage public safety adoption. To combat this negative incentive and to encourage creative bids that will generate the best result for public safety, FirstNet should broaden the scope of Category Two, providing vendors a countervailing benefit tied to subscriber adoption (*i.e.* access to some portion of subscriber fees) as well as the opportunity to offer on a regional basis more of the functions currently reserved to Category One bidders.

As explained in Sec. II.A above, subscriber adoption is a function best accomplished at the regional level—FirstNet thus should permit Category Two vendors to include subscriber adoption (and customer lifecycle management, for that matter) in their regional proposals. Indeed, FirstNet should encourage creative Category Two proposals by permitting vendors to submit regional proposals that include any of the High Level Functions that do not threaten interoperability and that could reasonably lend themselves to a beneficial regional implementation. Accordingly, FirstNet should include as options

⁶ At its January 28-29, 2015 workshop, MACINAC presented a high-level financial analysis to help assess the viability of a regional approach to NPSBN deployment and operation. The analysis includes a number of assumptions, including those related to subscriber fee revenue and CLA revenue. Materials developed for that analysis are available at www.macinac.org.

⁷ MACINAC Response to RFI and First Notice at 11.

in Category Two the High Level Functions of deployables, subscriber adoption, and customer lifecycle management.⁸

III. CONCLUSION

MACINAC appreciates and is encouraged by the regional Category Two option FirstNet proposes in the Special Notice. We urge FirstNet to take advantage of the inherent benefits of the regional approach by broadening Category Two to allow bidders the option of addressing additional High Level Functions, including subscriber adoption and customer lifecycle management.

MACINAC's comments on the Special Notice include both this document as well as the attached spreadsheet addressing the operational architecture.

Respectfully submitted on behalf of the MACINAC Initiative,

/s/
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Attached as separate file under same cover: Operational Architecture Comment Form C-7

⁸ Satellite and devices may be examples of functions best fulfilled on a nationwide scale for economic reasons which could not reasonably be offset by any benefit from addressing regionally.